

REMARKS

Applicants have carefully reviewed the application in light of the final Office Action dated March 17, 2009 and the Advisory Action dated June 4, 2009. Claims 1-28 are pending and stand rejected. In light of the foregoing, Applicants respectfully request reconsideration and allowance of the pending claims.

Section 103 Rejections

The Examiner rejects Claims 1-28 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Publication No. 2002/0103264 A1 to Allam et al. ("*Allam*") in view of U.K. Publication No. 2,168,718 A to Horton ("*Horton*"). Applicants respectfully traverse these rejections for the comments set forth below.

Independent claim 1 recites, "gasifying at least a portion of the solid-carbon components in the exothermically-generated syngas product using the reactive diluent fluid." The Office Action fails to cite any passage that teaches or suggests gasifying solid-carbon components using a reactive diluent fluid that is recycled from down stream processing. Thus, Applicants submit that the *Allam-Horton* combination fails to teach each and every limitation of the claimed invention.

In addition, the Applicants submit that there is no suggestion and motivation to combine the art. The Office Action states that a person of ordinary skill in the art would be motivated to modify *Allam* with the method in *Horton* because the disclosed method "reduces the temperature of the raw syngas and can potentially prevent metal dusting of the heat exchange reformer." Office Action, page 4. To begin with, *Horton* teaches cooling syngas after exiting a reformer, *not* prior to entering a reformer. Furthermore, a person of ordinary skill in the art would not cool a gas above 700 °C to prevent metal dusting because, by reducing the temperature of the syngas, you are in fact increasing the likelihood that metal dusting will occur. In fact, the exact reference cited by the Office Action, U.S. Patent Publication No. 2002/0155061, states that "the composition of the raw syngas stream 46 is conducive to dusting of metal surfaces in downstream heat transfer equipment unless these surfaces are maintained at a temperature above

about 700 °C or below 400 °C.” Para. 0023. As is well known in the art, the GHR would not operate according to specifications if the temperature is below 400 °C, so metal dusting is likely as the temperature increases above 700 °C. Thus, there is no suggestion or motivation to combine the references based on metal dusting. In addition, the Applicants submit that the Examiner may be using hindsight to combine the references. It is improper to use the claimed invention as an instruction manual or template to piece together the teachings of the prior art so that the claimed invention is rendered obvious. *In re Fritch*, 972 F.2d 1260, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992). Accordingly, Applicants respectfully request reconsideration and allowance of claims 1-28.

CONCLUSION

Applicants have now made an earnest attempt to place this case in condition for allowance. For the foregoing reasons, and for other reasons clearly apparent, Applicants respectfully request full allowance of all Claims.

If the present application is not allowed and/or if one or more of the rejections is maintained, Applicants hereby request a telephone conference with the Examiner and further request that the Examiner contact the undersigned attorney to schedule the telephone conference.

A Request for Continued Examination and a Petition for a three-month extension of time accompany this filing. The RCE fee in the amount of \$405 and the fee for a three-month extension of time in the amount of \$555 are being paid concurrently herewith on the Electronic Filing System (EFS) by way of Deposit Account authorization to Deposit Account No. 06-1050. Please apply any other charges or credits to Deposit Account No. 06-1050, referencing the attorney docket number shown above.

Respectfully submitted,

Date: September 16, 2009

/Michael E. Cox/

Michael E. Cox
Reg. No. 47,505

Fish & Richardson P.C.
1717 Main Street, Suite 5000
Dallas, TX 75201
Telephone: (214) 747-5070
Facsimile: (877) 769-7945